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Imposing Criminal Liability on Government Officials Under Environmental Law: A Legal and Economic Analysis

MICHAEL G. FAURÉ,* INGEBOURG M. KOOPMANS,** AND
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I. INTRODUCTION

Most countries base environmental policy primarily on a "command and control" approach of permits and licenses. In this system, governmental agencies play a crucial role because they can determine the legally permitted amount of pollution. For example, they may set emission standards through the use of permits and licenses. Therefore, how agencies perform their duties can strongly impact environmental quality in a particular region. For instance, if an agency wrongfully issues permits to certain industries, the agency's conduct has a direct influence on the pollution of the environment. Hence, lawyers ask whether government officials who wrongfully issue permits are criminally liable if their behavior contributes to environmental pollution. Legal scholars, especially in Germany, increasingly consider the possibility of imposing criminal liability on government officials, a practice called *Amtsträgerstrafbarkeit*.

This Article examines from an economic point of view the tendency towards *Amtsträgerstrafbarkeit*. The central questions are: (1) how criminal liability for government officials fits into the general economic theory of environmental law, and (2) whether holding government officials liable under criminal law is efficient. Part II of this Article examines the U.S. and German legal systems

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to provide an overview of the arguments advanced by legal doctrine that favor and oppose criminal liability of government officials. Part III analyzes the same problem from a legal and economic perspective. Finally, Part IV provides a few closing remarks and concludes that imposing criminal liability on government officials may be warranted.

II. LIABILITY OF GOVERNMENT OFFICIALS: AN OVERVIEW OF THE LEGAL DOCTRINE

The U.S. and German legal systems have opposing solutions to the problem of criminal liability of government officials. U.S. legal doctrine seems to oppose personal liability of the official, whereas German legal scholars increasingly favor personal liability.

A. *Liability of Government Officials in the United States*

U.S. legal doctrine does not discuss the problem of imposing criminal liability on government officials. Some commentators, however, have considered the issue of holding a government official or his agency liable in tort for damages that his actions cause. The questions central to the issue of criminal liability also arise in literature and case law on tort liability. Hence, the following overview of the arguments regarding the tort liability of agencies and government officials also applies to the problem of criminal liability.

1. Historical Overview

Ancient Anglo-American law held that government officials were not immune from the sanctions of law applicable to private individuals.¹ The law regarded government officials as ordinary citizens who serve the government for a specific period of time and, after their public term expired, return to the ranks of private citizens. Therefore, under common law, official status did not give government officials immunity from the law. As a result, plaintiffs could sue them for damages their acts caused, even though the officials performed the acts in the course of their official duty.²

*Miller v. Horton*³ demonstrates this common law principle. In *Miller v. Horton*, a Massachusetts statute empowered health

1. BERNARD SCHWARTZ, ADMINISTRATIVE LAW 557 (2d ed. 1984).

2. *Id.* at 558.

3. 26 N.E. 100 (Mass. 1891); see SCHWARTZ, *supra* note 1, at 566.

officers to examine horses believed to be infected with glanders, and to destroy and bury all diseased animals in order to prevent spreading this contagious disease.⁴ A farmer sued the health officer who had ordered destruction of the farmer's horse. The court found that the horse was not infected and, because the statute only authorized the officer to destroy infected horses, he committed an unauthorized act by killing a healthy horse.⁵ The defendant's official status did not preclude his liability.⁶

2. From Liability of Government Officials Towards Immunity

Over the past few decades, the common law rule of *Miller v. Horton* changed radically. Liability of government officials increasingly moved towards immunity of government officials.

Judges comprise an important class of public officers that the common law traditionally exempted from its strict rule of liability.⁷ The main justification for this exception is that allowing defeated litigants to sue a judge would destroy the proper administration of justice. Liability of judges would be inconsistent with a judge's freedom to act upon personal convictions absent apprehension of personal consequences, and would destroy judicial independence without which a judiciary could be neither respectable nor useful.⁸

Courts have extended the immunity enjoyed by judges to administrative officials exercising adjudicatory functions. As with members of the judiciary, administrative officials have authority to determine private rights and obligations.⁹ *Butz v. Economou*¹⁰ confirmed the extension of judicial immunity to administrators entrusted with adjudicatory authority. The *Butz* court affirmed the absolute immunity of officials who prosecute and hear complaints.¹¹

The extension of judicial immunity to discretionary acts, such

4. 26 N.E. at 100.

5. *Id.* at 103.

6. *Id.*

7. *Bradley v. Fisher*, 80 U.S. (13 Wall.) 335, 347 (1871); see also SCHWARTZ, *supra* note 1, at 559; WALTER GELLHORN ET AL., *ADMINISTRATIVE LAW* 1166 (8th ed. 1987).

8. *Bradley*, 80 U.S. (13 Wall.) at 347; see also SCHWARTZ, *supra* note 1, at 559; GELLHORN ET AL., *supra* note 7, at 1166.

9. SCHWARTZ, *supra* note 1, at 559.

10. 438 U.S. 478 (1978).

11. *Id.* at 478. The Court highlighted, in particular, the status of administrative law judges whose judicial role and dignity require that they be vested with the absolute immunity that shields judges in the courts. See SCHWARTZ, *supra* note 1, at 560.

as issuing permits and licenses, further expanded the range of official immunity. Both federal courts and several state courts have held that government officials normally are not liable in tort for discretionary acts, even if the official makes a choice that is beyond his power.¹² Consequently, an official having statutory authority to issue a license or permit will not be liable under common law for damages arising out of his wrongful issuance of a permit or license.¹³ If the official does not have discretionary power, however, and his duties are "ministerial," he can be held liable for failure to perform those duties.¹⁴

In *Barr v. Matteo*,¹⁵ the Supreme Court affirmed the extension of official immunity. The Court defined official immunity in the broadest terms:

It is important that government officials be free to exercise their duties unembarrassed by the fear of damages suits for acts done in the course of those duties. Such suits would consume time and energy, which would otherwise be devoted to governmental service. The threat of such suits might also appreciably inhibit fearless, vigorous, and effective administration of government policies.¹⁶

Barr was significant in that it extended the principle of government officials' immunity to every officer in the entire federal bureaucracy acting within the scope of his duty.¹⁷

12. See LOUIS L. JAFFE, JUDICIAL CONTROL OF ADMINISTRATIVE ACTION 240 (1965).

13. *Id.*

14. Consequently, only officials at the lowest level of the administrative hierarchy are generally personally liable because they are the only ones who do not exercise discretionary power. According to Jaffe, the distinction between "ministerial" and "discretionary" is at least unclear, and immunity, in terms of discretionary power, represents a balancing of certain important factors, such as the character and severity of the plaintiff's injury, the existence of alternative remedies, the capacity of a court or jury to evaluate the propriety of the official's action, and the impact of liability on the official or the treasury for effective administration of law. *See id.* at 241.

15. 360 U.S. 564 (1959).

16. *Id.* at 571.

17. Courts have applied *Barr v. Matteo* to officers far down in the administrative hierarchy, including a deputy U.S. marshal, an Internal Revenue Service collection officer, and a Health, Education and Welfare claims representative. *See Norton v. McShane*, 332 F.2d 855 (5th Cir. 1964); *Bershad v. Wood*, 290 F.2d 714 (9th Cir. 1961); *Poss v. Liebermann*, 299 F.2d 358 (2d Cir. 1962). Thus far, however, courts have refused to extend the rule of *Barr v. Matteo* to police officers sued for false arrest, false imprisonment, or excessive force. *See SCHWARTZ, supra* note 1, at 561-62; *GELLHORN ET AL., supra* note 7 at 1168-75; *JAFFE, supra* note 12, at 240-44; 3 KENNETH C. DAVIS, ADMINISTRATIVE

In 1978, *Butz v. Economou*¹⁸ was a major break from the *Barr* trend towards absolute official immunity. The Supreme Court in *Butz* distinguished between the absolute official immunity conferred upon government officials for mere wrongful acts and the qualified immunity that protects them in case of constitutional violations.¹⁹ In *Butz*, the Department of Agriculture (DOA), without issuing a warning letter, brought a proceeding to revoke or suspend the registration of respondent's corporation.²⁰ After the hearing, the Judicial Officer of the DOA affirmed the examiner's decision to uphold the charge, but an appellate court later reversed the DOA's ruling.²¹ Respondent brought an action for damages against petitioner officials alleging constitutional violations, such as deprivation of procedural due process by instituting unauthorized proceedings. The Supreme Court held that federal officials are not absolutely immune from liability for damages arising from a knowing violation of constitutional rights.²²

The basis for the Supreme Court's decision is that a federal official cannot receive protection for ignoring his legal limitations.²³ An official has immunity only when a controlling federal law authorizes his acts. Indeed, if an official can be liable for actions beyond the limit of his statutory authority, it would be incongruous not to hold the official liable for knowingly or willfully violating constitutional rights.²⁴ Consequently, the absolute immunity for government officials formulated in *Barr v. Matteo* does not apply in tort actions charging violations of constitutional rights. Because plaintiffs can easily frame charges of tortious official conduct in constitutional terms, *Butz v. Economou* considerably restricted the broad range of immunity *Barr* offered to government officials.

Butz, however, did not completely abolish official immunity in the event of constitutional violations. Although it denied absolute immunity to government officials, the Supreme Court indicated that officials charged with constitutional violations may assert

LAW TREATISE 520-25, (1958).

18. 438 U.S. 478, 489-95 (1978).

19. *Id.* at 479; see SCHWARTZ, *supra* note 1, at 562.

20. *Butz*, 438 U.S. at 481.

21. *Id.*

22. *Id.*

23. *Id.* at 489.

24. SCHWARTZ, *supra* note 1, at 563.

protection under qualified immunity.²⁵ When government official actions cause injury or damage, qualified immunity protects government officials unless they knew, or reasonably should have known, that their actions would violate established constitutional rights.²⁶

This evolution from liability to immunity indicates courts' recognition that holding government officials and private individuals equally liable may be undesirable. Several arguments attempt to explain this view. First, a major difference exists between the duties that government officials and private individuals owe. An official acts for the public interest and the community profits from his actions; a private individual acts for his own interest and solely derives the benefits of his actions. Also, government action would be impossible if its officials are frequently subject to damage suits whenever they discharge their public functions.²⁷ Although private parties also face the possibility of suit, public officials, unlike private parties, do not have the option simply to refuse to act. Hence, they are often charged with acting in coercive ways.²⁸ Second, personal liability may paralyze the initiative of government officials, an undesirable effect in the face of complaints that government administration already lacks initiative.²⁹ Third, imposing on a government official the inherent risks of his profession is unfair, as is imposing a duty to indemnify tort victims from the official's personal resources. The Supreme Court referred to this issue by stating that imposing liability on "an [official] who

25. *Butz*, 438 U.S. at 564.

26. See SCHWARTZ, *supra* note 1, at 564; *Harlow v. Fitzgerald*, 457 U.S. 800 (1982) (addressing the issue of qualified immunity).

27. See SCHWARTZ, *supra* note 2, at 561.

28. See RICHARD A. EPSTEIN ET AL., *CASES & MATERIALS ON TORTS* 870-71 (4th ed. 1984).

29. Cases like *Miller v. Horton* demonstrate the danger of paralysis where the common law rule is strictly applied. 26 N.E. 100 (Mass. 1891). In *Miller*, the court held officers liable for destroying a horse that in fact was not infected. *Id.* The effect of personal liability in such a case is not difficult to imagine. Although the law requires action, the officer would think twice before destroying an infected horse because a court may decide that the horse is not infected and, therefore, makes the killing illegal and the officer personally liable for damages. The officer's hesitation could lead to an increased risk of spreading the disease. See SCHWARTZ, *supra* note 1, at 566-67; see also JAFFE, *supra* note 12, at 245-57 (giving examples of the paralyzing effects of a personal liability of government officials); EPSTEIN, *supra* note 28, at 871, ("For officials making hundreds of decisions a year, the situation could quickly become intolerable, with the possible result that the able people most needed for public positions would be deterred from taking them.").

is required, by legal obligation of his position, to exercise discretion . . . is unjust."³⁰

3. Governmental Liability

One of the basic doctrines in Anglo-American law is sovereign immunity, which provides that a party may not sue the government without the latter's consent. This rule applies to both federal and state governments.³¹ In the Federal Tort Claims Act of 1946 (FTCA),³² Congress gave consent to sue the U.S. government. The FTCA states that the United States will be liable for tort claims "under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred."³³ This permission to sue the U.S. government, however, is not as broad as it may appear because of the many exceptions contained in the FTCA. Three categories of exceptions include: (1) specific administrative functions or agencies, as well as for all claims arising in foreign countries; (2) specific torts, including most intentional torts;³⁴ and (3) acts and omissions of officials exercising due care in enforcing statutes or regulations, whether or not they are valid.³⁵ The FTCA also excepts government officials exercising discretionary

30. *Schreuer v. Rhodes*, 416 U.S. 232, 240 (1974).

31. The origin of the rule of sovereign immunity is unclear. No provision of the Constitution dictates its implementation. The doctrine was not applied as the basis of a decision of the Supreme Court until 1846. See *United States v. McLemore*, 45 U.S. (4 How.) 286 (1846). The reasons for accepting the doctrine of sovereign immunity include the argument that "the King can do no wrong" and the similarly conceptual contention that there can be no legal right against the authority that makes the law on which the right depends. A "practical or political justification of the immunity is avoidance of undue judicial interference in the affairs of government." GELLHORN ET AL., *supra* note 7, at 1150; see also JAFFE, *supra* note 12, at 197-231; DAVIS, *supra* note 17, at 434-505; EPSTEIN, *supra* note 28, at 853.

32. 60 Stat. 842 (1946) (codified as amended at 28 U.S.C. §§ 1291, 1346, 1402, 1504, 2110, 2401-02, 2411-12, 2671-78, 2680 (1995)).

33. 28 U.S.C. § 1346(b) (1995).

34. FTCA denies jurisdiction to the courts in case of "any claim arising out of assault, battery, false imprisonment, false arrest, malicious prosecution, abuse of process, libel, slander, misrepresentation, deceit, or interference with contract rights." See 28 U.S.C. § 2680(h) (1995). Under a 1974 amendment to section 2680(h) of the FTCA, however, the United States can be liable for assault, battery, false imprisonment, false arrest, abuse of process, or malicious prosecution committed by law enforcement officers. See Pub. L. No. 93-253, § 2, 88 Stat. 50 (1974).

35. 28 U.S.C. § 2680(a).

functions, whether or not the official abuses the discretion.³⁶

This last exception significantly limits the responsibility of the federal government. In most cases where a negligent government official commits an act that causes damage, the official is acting in the execution of a statute or regulation, or in the exercise of discretionary power, and thus, the last exception of the FTCA precludes liability for the United States.³⁷ The Supreme Court, however, limited this broad exception by distinguishing between the policy or planning level and the operational level.³⁸ An example of an act at the policy level is the decision to provide a specific service; an act at the operational level constitutes the affirmative exercise of the negligent execution of the particular service.

Aside from the federal government, states also have consented to suit for governmental tort liability. State governments increasingly are making themselves liable on the same basis as private tortfeasors, and a number of states have legislated significantly on the subject of sovereign immunity.³⁹ Along with this legislative development, the judiciary also has made an attack on sovereign

36. *Id.*

37. The principle underlying the third exception of the FTCA was the basis of a decision in *Dalhite v. United States*, a test case arising from the Texas City disaster. 346 U.S. 15 (1953). In 1947, a large cargo of ammonium nitrate fertilizer exploded on board a ship docked at Texas City. *Id.* at 17. The result was a gutting of the entire dock area, more than 500 persons killed and 3000 injured, and property damage into hundreds of millions of dollars. *Id.* at 48. The federal government owned the plants that manufactured the fertilizer pursuant to government orders and specifications. *Id.* at 18. Under the Marshall Plan, the government directed the fertilizer to be shipped to Europe. Under the FTCA, plaintiffs brought more than 300 suits against the United States based on the government's negligent handling of the fertilizer. *Id.* at 48. The lower court found negligence in the production, transportation, and storage of the fertilizer, but the Supreme Court found that the government was not liable because the incident involved discretionary authority. Thus, the provision in the FTCA precludes actions for abuse of discretionary power regardless of negligent conduct. See SCHWARTZ, *supra* note 1, at 570; JAFFE, *supra* note 12, at 257-60; GELLHORN ET AL., *supra* note 7, at 1201-02.

38. For an example of this distinction, see *Indian Towing Co. v. United States*, 350 U.S. 61, 69 (1955) (holding the government liable for damage to a ship caused by the Coast Guard's negligent maintenance of a lighthouse light). The Court stated that "[t]he Coast Guard need not undertake the lighthouse service. But once it exercised its discretion to operate a light . . . and engendered reliance on the guidance afforded by the light, . . . the Coast Guard was . . . obligated to use due care" to make certain that the light was kept in good working order. *Id.* at 69.

39. SCHWARTZ, *supra* note 1, at 573 n.2. Those states include Arkansas, California, Illinois, Iowa, Louisiana, Michigan, Minnesota, Nevada, Oklahoma, Oregon, Utah, and Washington. *Id.*

immunity during this period.⁴⁰ In fact, judicial decisions abolishing state governmental immunity from tort liability are among the most important developments in this area. The most significant case in this respect is *Muskopf v. Corning Hospital District*,⁴¹ where the California Supreme Court ruled that "governmental immunity from tort liability . . . must be discarded as mistaken and unjust."⁴² Sovereign immunity in tort "is an anachronism, without rational basis, and has existed only by force of inertia."⁴³ After this decision by the California court, the courts of more than half of the states have wholly or partially repudiated the doctrine of sovereign immunity from torts.⁴⁴

4. Liability of Government Officials v. Governmental Liability

The law has shifted from liability towards immunity of government officials. Legal doctrine proposes that this evolution resulted in the need for governmental liability because broad immunity for government officials left the injured individual without a remedy. Absent substitute reparations, this situation was intolerable.⁴⁵ Although some considered government liability an adequate alternative to the liability of government officials, holding the government liable meant overcoming the bar of sovereign immunity. The enactment of the FTCA by Congress in 1946 and subsequent developments in jurisprudence and legislation towards governmental liability marked a major breakthrough.⁴⁶

Some U.S. legal scholars consider the movement from official liability to government liability desirable for the injured plaintiff because it results in compensation in almost every case.⁴⁷ Governmental liability, however, leaves the taxpaying public paying for most of the damages that result from governmental activity.⁴⁸

The arguments previously discussed in the context of tort

40. *Id.* at 573.

41. 359 P.2d 457 (Cal. 1961).

42. *Id.* at 458; see also *Mayle v. Pennsylvania Dep't of Highways*, 388 A.2d 709 (Pa. 1978) (abolishing the doctrine of sovereign immunity in Pennsylvania).

43. *Muskopf*, 359 P.2d at 458, 460.

44. SCHWARTZ, *supra* note 1, at 573-74.

45. *Id.* at 568.

46. See *id.* at 568-69.

47. *Id.* at 575.

48. *Id.* at 575-76. "Public tort liability will be replaced by what amounts to a governmental-operated system of mutual insurance for those damaged by administrative action." *Id.* at 575.

liability are also applicable to the problem of criminal liability of government officials. A trend exists towards governmental liability replacing individual official liability. Because of this development, comparing the structure of corporate criminal liability, with the development and organization of governmental criminal liability is useful. A system of broad governmental responsibility, however, means the practical elimination of the personal responsibility of government officials. Even in those types of cases to which immunity of government officials does not apply, plaintiffs will prefer to sue the government and avoid the defendant's inability to pay in case of execution of a judgment.⁴⁹

B. Criminal Liability of Government Officials in Germany

1. Introductory Remarks

Although the German Criminal Code does not specifically hold government officials criminally liable for failing to execute their duties in environmental protection, such a failure may constitute an environmental crime.⁵⁰ Government officials are also citizens, and are not exempt under criminal law. In principle, if their actions are criminal, the government can punish them like other citizens. Courts also have held that the government can

49. *Id.* at 575-76.

50. See Strafgesetzbuch [German Criminal Code] § 324 (1989) (water pollution is an environmental crime); see ULRICH WEBER, STRAFRECHTLICHE VERANTWORTLICHKEIT VON BÜRGERMEISTERN UND LEITENDEN VERWALTUNGSBEAMTEN IM UMWELTRECHT, WÜRZBURG, KOMMUNALWISSENSCHAFTLICHES FORSCHUNGSZENTRUM 19 (1988); Bernd Schönemann, *Die Strafbarkeit von Amtsträgern im Gewässerstrafrecht*, WISTRA (ZEITSCHRIFT FÜR WIRTSCHAFT, STEUER, STRAFRECHT), Nov. 15, 1986, at 235; KLAUS TIEDEMANN, DIE NEUORDNUNG DES UMWELTSTRAFRECHTS 44 (1980); Rolf Keller, *Zur strafrechtlichen Verantwortlichkeit des Amtsträgers für fehlerhafte Genehmigungen im Umweltrecht*, in Festschrift für Kurt Rebmann zum Geburtstag 257 (Heinz Eyrich et al. eds., 1989); Wolfgang Winkelbauer, *Die strafrechtliche Verantwortung von Amtsträgern im Umweltstrafrecht*, 4 NEUE ZEITSCHRIFT FÜR STRAFRECHT 149, 150 (1986); Hero Schall, *Umweltschutz durch Strafrecht: Anspruch und Wirklichkeit*, 20 NEUE WOCHENSCHRIFT 1263, 1268 (1990); Volker Meinberg, *Amtsträgerstrafbarkeit bei Umweltbehörden*, 36 NEUE WOCHENSCHRIFT 2220, 2221 (1986); Günther Heine & Volker Meinberg, *Empfehlen sich Änderungen im strafrechtlichen Umweltschutz, insbesondere in Verbindung mit dem Verwaltungsrecht?*, VERHANDLUNGEN DES SIEBENUNDFÜNFZIGSTEN DEUTSCHEN JURISTENTAGES 57-58 (1988).

Commentators have suggested the introduction of a specific environmental crime for government officials. See WEBER, *supra* at 18-19; Herbert Tröndle, *Verwaltungshandeln und Strafverfolgung-Konkurrierende Instrumente des Umweltrechts?*, 10 NEUE FÜR VERWALTUNGSRECHT 918, 925-27 (1989); Schönemann, *supra* at 235; Meinberg, *supra* at 221; Heine & Meinberg, *supra* at 55.

punish officials who wrongfully issue permits or tolerate illegal pollution for crimes other than failure to protect the environment, such as the perversion of justice and endangerment through the emission of poisonous substances.⁵¹ The possibility of prosecuting a government official is especially important in view of the interweaving of German administrative and criminal law. Because German criminal law generally imposes liability only in the absence of a permit, the government cannot punish a polluter under the law if he has a permit, however wrongful his detrimental conduct.⁵² Therefore, exempting from criminal prosecution an official who issued the permit would severely impair use of the criminal law to control environmental pollution. The government official also contributes to environmental pollution by not enforcing compliance with environmental regulations. If control is insufficient or totally lacking, potential polluters have no incentive to comply. In the presence of ineffective control of pollution, the question of whether government officials can be held liable under criminal law merits attention.

Three distinguishable situations exist in which a government official may be criminally liable for environmental pollution: (1) neglecting a duty to public utility enterprises, such as sewage purification plants; (2) neglecting a duty by wrongfully issuing permits; and (3) failing to intervene in cases of illegal pollution.⁵³ The first of these three categories has no bearing on the exertion of control over pollution by private individuals. If an official neglects a duty regarding public utility enterprises, and such neglect causes environmental damage, the general rules of criminal liability

51. See, e.g., STRAFGESETZBUCH [Penal Code] [StGB] § 336 (F.R.G.) (perversion of justice); Amtsgericht [County Court] Frankfurt, *Neue Zeitschrift für Strafrecht* 72, 75-6 (1986); Landgericht [District Court] Hanau, *NEUE ZEITSCHRIFT FÜR STRAFRECHT* 181 (1988). Commentators have severely criticized the application of § 336. See Meinberg, *supra* note 50, at 2223; Heine & Meinberg, *supra* note 50, at 54-55. Commentators also have criticized §§ 223-233 (causing bodily harm) and § 303 (causing damage to property). See Heine & Meinberg, *supra* note 50 at 59-60.

52. See Schünemann, *supra* note 50, at 235; TIEDEMANN, *supra* note 50, at 42; Winkelbauer, *supra* note 50, at 149-50. German Criminal Code § 330a (serious endangerment through emission of poisonous substances) is an exception to this rule. See TIEDEMANN, *supra* note 50, at 41.

53. See WEBER, *supra* note 50, at 20-21. Of course, this is only one of several possible classifications. For other classifications, see Hans-Joachim Rudolphi, *Primat des Strafrechts im Umweltschutz?*, *NEUE ZEITSCHRIFT FÜR STRAFRECHT*, May 15, 1984, at 193, 198; Winkelbauer, *supra* note 50, at 150.

will punish such an official.⁵⁴ The remaining two categories are relevant, and the following sections discuss criminal liability for wrongfully issuing permits and the possibility of holding government officials criminally liable for non-intervention in cases of illegal pollution.

2. Criminal Liability for Wrongfully Issuing Permits

A preliminary question is how to determine whether the issuance of a permit is wrongful. Generally, a criminal court is not totally free to decide this question. The court cannot apply independent criteria related to criminal law, but rather must apply administrative law. Because governmental agencies and officials have relatively large discretionary power in issuing permits, the criminal court has only a marginal right to examine the execution of this power. Thus, the issuance of a permit is wrongful only if administrative law clearly does not allow it and the official's extensive discretionary powers cannot justify the permit's issuance.⁵⁵

a. Cases in which Government Officials Are Not Liable

Two exceptions exist to the general rule that government officials are criminally liable for issuing permits wrongfully. The first exception concerns those sections of the German Criminal Code that do not address all persons, but only certain groups of people under specific circumstances (*Sonderdelikte*).⁵⁶ For instance, section 325 (air pollution and noise), section 327 (operating an installation without a permit), and section 329(1) and (2) (endangering areas in need of protection) of the German Criminal Code only apply to those who operate certain installations.⁵⁷ This

54. See WEBER, *supra* note 50, at 22-23; Tröndle, *supra* note 50, at 918-19; Schall, *supra* note 50, at 1269; Meinberg, *supra* note 50, at 2222; Heine & Meinberg, *supra* note 50, at 57.

55. See Oberlandesgericht [Court of Appeals] Frankfurt, *Juristische Rundschau* 168 (1988); Keller, *supra* note 50, at 247-48; Rudolph, *supra* note 53, at 199; Winkelbauer, *supra* note 50, at 152-53; Meinberg, *supra* note 50, at 2225-27; Heine & Meinberg, *supra* note 50, at 59.

56. See WEBER, *supra* note 50, at 34-35.

57. *Id.* at 34-35; Keller, *supra* note 50, at 253; Winkelbauer, *supra* note 50, at 150; Eckhard Horn, *Strafbares Fehlverhalten von Genehmigungs und Aufsichtsbechörden*, *NEUE WOCHENSCHRIFT*, Jan. 12, 1982, at 3-4; Schall, *supra* note 50, at 1269; Meinberg, *supra* note 50, at 2223; Heine & Meinberg, *supra* note 50, at 58. Commentators have argued that this standard needs to be changed. See Keller, *supra* note 50, at 253-57.

exception also precludes prosecution for inciting or abetting. Because the polluter has a permit and his actions therefore are justified, the polluter committed no crime for the official to have incited or aided and abetted.⁵⁸ The only exception to this rule is the case in which a permit is null and void.⁵⁹

The second exception involves permits that are wrongfully issued but nonetheless effective until revoked, because incrimination can occur only when the perpetrator lacks a permit. Such is the case with German Criminal Code section 325 (air pollution and noise), section 327 (operating an installation without a permit), and section 328 (handling nuclear fuel without a permit). Because the polluter has an effective permit, he has committed no crime. Consequently, for lack of a criminal offense, the government official who issued the wrongful permit cannot be punished for inciting or aiding and abetting.⁶⁰ This holds true even in cases where the polluter obtained the permit by means of fraudulent misrepresentation, bribery, or extortion.⁶¹

b. Cases in which Government Officials Are Liable

If a government official issues a permit, and authorities subsequently declare the permit null and void after the permit holder polluted the environment, the official may be criminally liable.⁶² Because the permit is null and void under administrative law, courts treat it as if it never existed, and therefore the permit has no bearing in the criminal context.⁶³ Consequently, the authorities can punish the polluter, in principle, for his actions, and punish the official as an accessory to the crime for having issued the permit.⁶⁴

58. See Winkelbauer, *supra* note 50, at 150; Heine & Meinberg, *supra* note 50, at 58; Keller, *supra* note 50, at 253.

59. See Winkelbauer, *supra* note 50, at 150; Keller, *supra* note 50, at 253; *infra* part II.B.2.b.

60. See WEBER, *supra* note 50, at 37-38.

61. See *id.* at 67.

62. German Code of Criminal Procedure § 44 (1965); see Keller, *supra* note 50, at 247; WEBER, *supra* note 50, at 38-39.

63. See WEBER, *supra* note 50.

64. See Schünemann, *supra* note 50, at 240; WOLFGANG WINKELBAUER, ZUR VERWALTUNGSAKZESSORIETÄT DES UMWELTSTRAFRECHTS 67-68 (1985); Winkelbauer, *supra* note 50, at 151-52; WEBER, *supra* note 50, at 38-39; Schall, *supra* note 50, at 1266; EDWARD DREHER & HERBERT TRÖNDLE, STRAFGESETZBUCH UND NEBENGESETZE § 324 n.4b (1991).

If an official wrongly issues a permit, it will nevertheless remain in effect until the public authorities revoke it.⁶⁵ For crimes that do not contain the clause "without a permit," or a similar clause, the fact that there is an effective permit does not automatically preclude application of the criminal provision. For instance, German Criminal Code section 324 (water pollution) and section 326(1) (waste disposal that endangers the environment) contain the word *unbefugt* (unauthorized), which, according to the prevailing opinion, means "unlawfully," not "without a permit."⁶⁶ Thus, a water polluter still cannot be punished because the presence of an effective, although wrongful, permit constitutes justification. Consequently, the government official cannot be prosecuted for complicity, because there is no criminal offense to which the official can be an accessory. An exception exists in the case where the permit holder obtained the permit by means of fraudulent misrepresentation, bribery, or extortion.

Because a violation of the criminal law has occurred, however, and the wrongfully issued, yet effective, permit only protects the perpetrator, the authorities can convict the issuing official of an "indirect offense" (*mittelbare Täterschaft*). Using the previous example, the permit issuer thus committed the crime of water pollution through the actions of a justified middle man, the permit holder.⁶⁷

3. Criminal Liability for Non-Intervention

A court interpreting sections of the German Criminal Code would expect a violation to occur only by a positive act. Failure to intervene or act, however, is also a crime when, for example, an actor is polluting water. A prerequisite for this kind of criminal liability is the legal obligation to act to prevent the pollution from

65. See WEBER, *supra* note 50.

66. *Id.*

67. See Oberlandesgericht [Court of Appeals] Frankfurt, *Neue Juristische Wochenschrift* 2757 (1987); see also WEBER, *supra* note 50, at 39-42, 150-51; Winkelbauer, *supra* note 50, at 151; Schünemann, *supra* note 50, at 238-39; Horn, *supra* note 57, at 3-4; Meinberg, *supra* note 50, at 2222; Heine & Meinberg, *supra* note 50, at 58. Weber, however, dissents from this prevailing opinion. He constructs the criminal liability of the government official by stating that the wrongful permit is not a ground for justification, but just a (personal) ground for excuse, thus creating the possibility of prosecuting the government official who issued the wrongful permit, while at the same time preventing punishment of the permit holder. See WEBER, *supra* note 50, at 42-48; see also WINKELBAUER, *supra* note 64, at 72-73; Schünemann, *supra* note 50, at 240.

taking place. This is called a *Garantenstellung* (position of guarantor).⁶⁸

Two different kinds of guarantorship exist. First is the position of guarantor that follows from previous actions—*Garantenstellung aus Ingerenz*.⁶⁹ An example of this kind of guarantor, also called a *Überwachungsgarant* (guarantor of surveillance), is the official who issues a permit.⁷⁰ Second is a position of guarantor that arises when the official assumes a general duty to protect the environment against danger and damage.⁷¹ In this case, the official need not issue a permit at all, or commit any other act to be held liable.⁷² This is called a *Beschützergarant* (guarantor of protection).⁷³

The criminal courts must respect the large discretionary powers of government officials, and may examine those powers only marginally within the scope of criminal law. Therefore, if administrative law allows an official to be passive, criminal law cannot introduce an obligation to act.⁷⁴ Section 330 of the German Criminal Code (grave endangerment of the environment) is an exception where an obligation to act under criminal law limits the official's discretionary powers.⁷⁵

The following sections discuss a government official's criminal liability from a guarantorship of surveillance and of protection. The following also addresses another possible modality of criminal liability for non-intervention—criminal liability for not reporting environmental crimes to the police.

a. *The Government Official as Guarantor of Surveillance*

German legal literature acknowledges that those who create

68. See WEBER, *supra* note 50, at 49; Horn *supra* note 57, at 5.

69. Horn, *supra* note 57, at 5.

70. *Id.* at 6.

71. *Id.*

72. *Id.*

73. *Id.*

74. See Tröndle, *supra* note 50, at 922; Rudolphi, *supra* note 53, at 199; Winkelbauer, *supra* note 50, at 152-53; Horn, *supra* note 57, at 7, 10; Meinberg, *supra* note 50, at 2227; Heine & Meinberg, *supra* note 50, at 59; Judgment of April 27, 1987, *Beschwerdeentscheidung der Generalstaatsanwalt Celle*, cited in *Natur und Rech* 188-190 (1990) [hereinafter *Generalstaatsanwalt*]. For examples of the influence on criminal liability of non-intervention by agencies in cases of water pollution, see DIETER GENTZCKE, *INFORMALES VERWALTUNGSHANDELN UND UMWELTSTRAFRECHT* 4-6 (1990).

75. See WEBER, *supra* note 50, at 54.

a danger are obligated to prevent damage that may result from their actions. By issuing a permit, a government official creates the risk that the permit holder might violate provisions of criminal law. The official therefore has an obligation to act if these violations occur and result in illegal pollution. For instance, the official must act if a permit holder pollutes more than the permit allows, or if the permit should not have been issued in its present form.⁷⁶

In a water pollution case, the Court of Appeals in Frankfurt held that the belatedly-established wrongfulness of a permit forced the agency to revoke the permit if its revocation would prevent further deterioration of the water quality.⁷⁷

The guarantor of surveillance does not necessarily have to be the same official who issued the permit. The guarantorship is attached to the office.⁷⁸ Consequently, the official responsible for permits for environmental pollution is a guarantor even in those cases where not he, but a predecessor, issued the permit.⁷⁹

b. The Government Official as Guarantor of Protection

As opposed to the clear obligation of guarantorship of surveillance, whether a government official has a general duty to prevent damage to the environment is unsettled. Jurisprudence and some scholars favor protection, while others oppose it.⁸⁰

In another water pollution case, the District Court of Bremen decided that the director of a water resources board was a guarantor of protection because the Water Resources Act made

76. See WEBER, *supra* note 50, at 51. Of course, the government official must act only if administrative law also compels him to act. See also Tröndle, *supra* note 50, at 923-24; Schünemann, *supra* note 50, at 243-44; Rudolphi, *supra* note 53, at 199; Winkelbauer, *supra* note 50, at 151-52; Horn, *supra* note 57, at 6; Schall, *supra* note 50, at 1269; Meinberg, *supra* note 50, at 222-24; Heine & Meinberg, *supra* note 50, at 58-59.

77. Oberlandesgericht Frankfurt, *Neue Juristische Wochenschrift* 1987 at 2757. Again, this rationale only holds in cases where the agency must act according to administrative law and if it does not have discretionary power to justify its inactivity.

78. See WEBER, *supra* note 50, at 52.

79. See *Id.*; Tröndle, *supra* note 50, at 924; Schünemann, *supra* note 50, at 245; Horn, *supra* note 57, at 6; Schall, *supra* note 50, at 1269; Meinberg, *supra* note 50, at 2224.

80. Commentary in favor of protection includes: Landgericht [District Court] Bremen, *Neue Zeitschrift für Strafrecht* 164 (1982); Generalstaatsanwalt, *supra* note 74, at 188-90 (1990); Winkelbauer, *supra* note 50, at 151-52; Horn, *supra* note 57, at 6, 9-10; Meinberg, *supra* note 50, at 2223-24; Heine & Meinberg, *supra* note 50, at 58-59. Commentators opposed to protection include: WEBER, *supra* note 50, at 56-57; Tröndle, *supra* note 50, at 922-23; Schünemann, *supra* note 50, at 243-44; Schall, *supra* note 50, at 1270.

illegal water pollution prevention one of the director's duties.⁸¹ As described in section 38 of the Water Resources Act and section 324 of the Criminal Code, because the director had power to control and prevent pollution and arrange legal relations, he had the duty to prevent the detrimental consequences.⁸²

In an ironhydroxide water pollution case, the Attorney General in Celle held that the water resources board was appointed to guard the purity of water.⁸³ The board had control and surveillance powers. This led the Attorney General to conclude that the water resources board officials had the position of guarantor of protection.⁸⁴

c. Failure to Report Environmental Crimes to the Police

Because section 138(1) of the German Criminal Code (not reporting planned crimes) does not list environmental crimes, government officials are criminally liable only if section 258 (frustration of punishment) or section 258a (frustration of punishment in office) of the Code applies. These sections would apply if the law compelled the official to report environmental crimes to the police. No such duty, however, exists in either criminal or administrative law.⁸⁵ Although ministerial or other internal guidelines may create such an obligation to inform the police of crimes or suspicion of crimes,⁸⁶ sections 258 and 258a do not take such guidelines into consideration.⁸⁷ Scholars continue to debate whether government officials should have a duty to report environmental crimes to the police.⁸⁸

81. Landgericht [District Court] Bremen, *Neue Zeitschrift für Strafrecht* 164 (1982).

82. *Id.*; see WEBER, *supra* note 50, at 55-56.

83. Generalstaatsanwalt, *supra* note 74, at 188-90.

84. *Id.*

85. See WEBER, *supra* note 50, at 58-61; Meinberg, *supra* note 50, at 2225; Heine & Meinberg, *supra* note 50, 59-60.

86. Examples of such guidelines include the proclamation of the Bavarian Home Office of January 21, 1981, and the so called decree of cooperation in Northrhine-Westfalia of June 20, 1985. See WEBER, *supra* note 50, at 61; Heine & Meinberg, *supra* note 50, at 186; *id.*, Resolution 34(b) of the 1988 German Law Congress, at 289-90 (1988).

87. See WEBER, *supra* note 50, at 60-61; Meinberg, *supra* note 50, at 2225; Heine & Meinberg, *supra* note 50, at 59-60.

88. See, e.g., TIEDEMANN, *supra* note 50, at 42; Schall, *supra* note 50, at 1272-73.

4. *Amtsträgerstrafbarkeit* in German Legal Doctrine: A Summary of the Viewpoints

Looking at the problem from a policy perspective, the possibility of holding government officials criminally liable goes largely unchallenged in German legal doctrine. The position of government officials does not differ from that of other citizens—the normal rules of criminal law and liability apply. An important reason for prosecuting government officials is that the authorities often cannot prosecute the polluter himself because his permit justifies or excuses his conduct. By targeting the government official, illegal pollution will not go unpunished.⁸⁹

Holding government officials criminally liable, however, may be counterproductive. For instance, officials may become overly careful in executing their duties, thus inhibiting the effective weighing of environmental and socio-economic concerns in deciding the scope of permits.⁹⁰ Opponents of this argument, however, do not believe the drawbacks of criminal liability outweigh the benefits. Opponents argue that the possibility of prosecution encourages government officials to execute tasks with a justified amount of care.⁹¹ In view of the deference criminal courts give to the official's discretionary powers, the extent of liability to which officials are presently exposed is not great enough to cause the suggested counterproductive effects.⁹² Another argument against criminal liability is that the administrative authorities would be less inclined to inform the judicial authorities of environmental crimes for fear of being prosecuted themselves.⁹³ Again, the threat of liability is so minimal that the fear of liability resulting in failure to inform authorities of such crimes is not strong enough to outweigh the benefits of criminal liability.⁹⁴

89. See Meinberg, *supra* note 50, at 2221; Schünemann, *supra* note 50, at 235-36.

90. See Schünemann, *supra* note 50, at 235-36; WEBER, *supra* note 50, at 18-19; Schall, *supra* note 50, at 1269; Heine & Meinberg, *supra* note 50, at 193-94.

91. See Rudolphi, *supra* note 53, at 199; TIEDEMANN, *supra* note 50, at 46-47.

92. See Schall, *supra* note 50, at 1269-70; Rudolphi, *supra* note 53, at 199. Until now, only once has an official of an environmental protection agency been finally convicted for an environmental crime. See Günther Heine, *Die Verwaltungsakzessorietät im deutschen Umweltstrafrecht unter Berücksichtigung des österreichischen Rechts*, 1991 JZ 376; Heine & Meinberg, *supra* note 50, at 58. Cf. Tröndle, *supra* note 50, at 919; Schall, *supra* note 50, at 1269; Meinberg, *supra* note 50, at 2221.

93. See Schall, *supra* note 50, at 1269; Rudolphi, *supra* note 53, at 199.

94. See Schall, *supra* note 50, at 1269.

With respect to the suggested introduction of a specific crime for neglect of duty by officials in environmental protection agencies, the counterproductive effects outweigh the advantages.⁹⁵ Additional arguments, however, exist against specific incrimination of government officials for environmental offenses. For instance, some argue that the agencies concerned are not environmental protection agencies at all, but rather environmental regulation agencies, which weigh a clean environment and wealth equally. A legislator can change this position by mandating a clean environment as the more important goal. So long as no legislation exists, authorities should not punish government officials for choosing wealth over clean water in a specific case, unless they violate general provisions of the criminal law.⁹⁶ The problem of governmental official liability arises in other areas of the legal system, and criminalizing the wrongful issuance of permits only in one sector is unjust.⁹⁷ Curious, however, is that the introduction of a specific crime for government officials has been posited in order to limit the criminal liability to just such a provision.⁹⁸

Similar arguments arise regarding the introduction of a criminal provision, obligating government officials to report any known environmental crimes to the police or the District Attorney's office. Scholars argued that such an obligation would disrupt the working relationship between the environmental agencies and polluters holding or requesting a permit.⁹⁹ The potential polluter would no longer trust the issuing agency and its officials. The polluter's obligation to provide the agency with the information it desires poses an additional problem. If the agency had a duty to inform the police of environmental crimes, providing the agency with such information could lead to self-incrimination.¹⁰⁰ To remedy this problem, some have suggested that

95. See Winkelbauer, *supra* note 50, at 149; Keller, *supra* note 50, at 257; Heine & Meinberg, *supra* note 50, at 147.

96. See Meinberg, *supra* note 50, at 2226-27; WEBER, *supra* note 50, at 19; Winkelbauer, *supra* note 50, at 150; Tröndle, *supra* note 50, at 919, 926; Heine & Meinberg, *supra* note 50, at 57, 146-47.

97. See WEBER, *supra* note 50, at 19; Winkelbauer, *supra* note 50, at 150; Heine & Meinberg, *supra* note 50, at 57.

98. See Tröndle, *supra* note 50, at 919.

99. See WEBER, *supra* note 50, at 19-20; Schall, *supra* note 50, at 1272; Meinberg, *supra* note 50, at 2221.

100. See Schall, *supra* note 50, at 1272; WEBER, *supra* note 50, at 62.

government officials have discretionary powers¹⁰¹ to create at least an obligation to report violations of section 330 (grave endangerment of the environment) of the German Criminal Code.¹⁰²

5. Summary of Liability of Government Officials

In theory, government officials generally are criminally liable for wrongfully issuing permits and for choosing not to intervene against illegal polluters under German law. The coexistence of criminal and administrative environmental law, however, results in few prosecutions because criminal courts must respect the discretionary power of administrative agencies. Until today, the system has obtained only one final conviction of an environmental protection agency official for an environmental crime.¹⁰³ This fact, however, does not justify the conclusion that criminal liability of government officials is irrelevant under German law. The mere possibility of prosecution deters German civil servants who work for environmental agencies from committing violations.

Some commentators do not believe the alleged drawbacks of holding government officials criminally liable, such as exaggerated carefulness, outweigh the benefits of criminal liability. These drawbacks, however, have prevented the German legislature from introducing a specific criminal law addressing neglect of duty or failure to report environmental crimes to the police.

Finally, although this Article only discusses the status of U.S. and German law, many other countries also have considered imposing criminal liability on government officials for environmental crimes.¹⁰⁴

101. See Heine & Meinberg, *supra* note 50, at 157-58; Schall, *supra* note 50, at 1272.

102. See TIEDEMANN, *supra* note 50, at 43.

103. See Heine, *supra* note 92, at 376.

104. For a discussion of Belgium's approach, see MICHAEL G. FAURE, *DE STRAF-RECHTELIJKE TOEREKENING VAN MILIEUDELICTEN* 93-114 (1992). For the approach in the Netherlands, see CORNÉLIE WALING, *DAS NIEDERLÄNDISCHE UMWELTSTRAFRECHT* 95-97 (1991). For a comparative overview, see the national reports prepared for the preparatory colloquium of the AIDP on crimes against the environment, 65 INT'L REV. PENAL L. 731-1195 (1994).

III. AN ECONOMIC APPROACH TO THE USE OF CRIMINAL LIABILITY OF GOVERNMENT OFFICIALS IN CONTROLLING ENVIRONMENTAL POLLUTION

This part provides an economic analysis of the different mechanisms that authorities can use to enforce environmental protection regulations. Specifically, this part examines how the liability of governmental officials fits into the general framework of environmental regulation. First, a summary of the economic commentaries explains the current structure of environmental quality regulation and the various legal mechanisms used to control pollution.

A. *An Economic Analysis of Environmental Pollution: Basic Concepts*

Industrial activities sometimes are simultaneously socially desirable to many and detrimental to others because they cause environmental pollution. Those side effects are the well known externalities.¹⁰⁵ Industrial activity imposes costs or harmful effects on third parties without their consent.

According to many authors, environmental pollution represents a classic example of an externality.¹⁰⁶ An enterprise will not take into account the side effects that its industrial activities cause because it does not directly suffer from the harmful effects.¹⁰⁷ Without intervention by the legal system, the enterprise has no incentive to reduce activity that damages the environment. The economic function of environmental law, then, is to provide incentives to such industries, encouraging them to consider these negative side effects in making a cost-benefit analysis and determining what degree of care it will afford under the circumstances.¹⁰⁸ This incentive, in turn, impacts the scope and method of the polluter's intended activity.

Economists refer to this process as "internalizing the externalities."¹⁰⁹ In the past, when industrial pollution existed on

105. See RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 62 (3d ed. 1986).

106. See, e.g., ROB TEIJL ET AL., *INLEIDING RECHTSECONOMIE* 40-43 (1989); see also Michael G. Faure, *Milieubescherming door aansprakelijkheid of regulering?*, 39 AA 759, 760 (1990).

107. See Faure, *supra* note 106, at 760.

108. *Id.*

109. See TEIJL, *supra* note 106, at 41-43.

a small scale, achieving a minimal degree of pollution without legal interference would have been possible. The Coase Theorem¹¹⁰ provides that the potential injurer negotiates with the potential victims and reaches an agreement that reduces the environmental pollution in a way that achieves allocative efficiency.¹¹¹ Intervention of the legal system is unnecessary because the externality of the environmental damage is internalized automatically. The Coase Theorem, however, relies on the assumption that transaction costs are zero.¹¹²

The Coase Theorem can provide a solution in some instances of environmental pollution, such as those involving few victims.¹¹³ For example, the Coase Theorem applies in a situation such as one factory causing harm to a few, well-informed neighbors. In many cases of environmental pollution, however, the victims are innumerable and an entire society may suffer the consequences.¹¹⁴ In addition, the actual cause of pollution is not always clear because different enterprises contribute different types of pollution. In these cases, the transaction costs are high and the Coase Theorem is inapplicable because the assumption of zero transaction costs is inaccurate. Consequently, the scope of modern day pollution requires intervention by the legal system.¹¹⁵

110. This theorem is the starting point of the "new" law and economics. See R.H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1, 1-44 (1960).

111. *Id.*

112. The transaction costs involve the costs of negotiation, collecting information, and enforcement. See ROBERT COOTER & THOMAS ULEN, *LAW AND ECONOMICS* (1988); see also Michael G. Faure & Roger Van den Bergh, *Efficiënties van het foutcriterium in het Belgisch aansprakelijkheidsrecht*, 1987-1988 RECHTSKUNDIG WEEKBLAD 62-68; A. MITCHELL POLINSKY, *AN INTRODUCTION TO LAW AND ECONOMICS* 12 (1983).

113. For the application of the Coase Theorem in the environmental context, see POSNER, *supra* note 105, at 54-57; see also WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF TORT LAW* 42-53 (1987).

114. See, e.g., *United States v. Hooker Chems. & Plastics Corp.*, 680 F. Supp. 546, 549 (W.D.N.Y. 1988). Throughout a period of 11 years polluters dumped more than 21,000 tons of waste of various origins and quality in the northern part of the state of New York, known as Love Canal, which resulted in enormous health problems. See also *New York v. General Elec. Co.*, 592 F. Supp. 291, 293 (N.D.N.Y. 1984) (discussing how General Electric dumped between 400 and 500 55-gallon barrels containing hazardous waste in the Glenn Falls area, resulting in serious damage to soil, air, and natural resources).

115. See Faure, *supra* note 106, at 159 n.10; Michael G. Faure, *The EC Directive on Drinking Water: Institutional Aspects*, in *ENVIRONMENTAL TOXICOLOGY, ECONOMICS AND INSTITUTIONS: THE ATRAZINE CASE STUDY* 39 (L. Bergman & D.M. Pugh eds., 1994).

B. Liability or Regulation?

The legal system can control environmental pollution by imposing either liability or regulation. The goal of either system is to encourage potential polluters to make investments to reduce environmental damage.¹¹⁶ Contrary to the Coase Theorem, the potential polluter will not automatically make these investments, which represent "the level of efficient care," because cases of environmental pollution involve positive transaction costs.

Threatening liability is one way to internalize damages.¹¹⁷ Economic analyses of tort liability demonstrate that the specter of liability gives parties an incentive to use "efficient care."¹¹⁸ These incentives lead to a minimization of the social costs of accidents and, thus, to a maximization of social welfare.

Authorities may apply this system of incentives to the tort of environmental pollution.¹¹⁹ Authorities can use the threat of potential liability to force potential polluters to invest in environmental protection techniques that equal a standard of efficient care.¹²⁰ In the alternative, the government could set an efficient standard of care through regulations. Authorities could enforce these regulatory standards through administrative or criminal sanctions. Most current environmental regulatory schemes use a combination of liability laws and safety regulations.

Professor Steve Shavell indicates four criteria to determine the efficiency of liability versus regulation.¹²¹ First, Shavell discusses the possibility that private parties and regulatory authorities have

116. On the theory of regulation, see generally ANTHONY OGUS, *REGULATION: LEGAL FORM AND ECONOMIC THEORY* (1994).

117. See Faure, *supra* note 106, at 159.

118. Guido Calabresi provided the first suggestion for an economic analysis of liability rules. Guido Calabresi, *Some Thoughts on Risk Distribution and the Law of Torts*, 70 *YALE L.J.* 499 (1961); GUIDO CALABRESI, *THE COSTS OF ACCIDENTS: A LEGAL AND ECONOMIC ANALYSIS* (1970); see also STEVEN SHAVELL, *ECONOMIC ANALYSIS OF ACCIDENT LAW* (1987) [hereinafter SHAVELL, *ECONOMIC ANALYSIS*]. Liability rules should not only lead all parties in the accident setting to take efficient care, but also to adopt an optimal activity level—neither a negligence nor a strict liability rule are optimal. See Steven Shavell, *Strict Liability Versus Negligence*, 9 *J. LEGAL STUD.* 1 (1980) [hereinafter Shavell, *Strict Liability*].

119. See Faure, *supra* note 106, at 761.

120. For the determination of the level of efficient care, see Shavell, *Strict Liability*, *supra* note 118; SHAVELL, *ECONOMIC ANALYSIS*, *supra* note 118.

121. See Steven Shavell, *Liability for Harm Versus Regulation of Safety*, 13 *J. LEGAL STUD.* 357, 359 (1984).

different levels of knowledge regarding hazardous activities.¹²² Private parties often do not fully understand the benefits and costs of reducing risks, nor the probability and the severity of risks. When private parties do fully understand these factors, however, liability laws effectively encourage self-regulation. Where the regulator possesses information superior to that of private parties and the courts, however, direct regulation is more effective.¹²³

Second, Shavell discusses the situation in which private parties are incapable of paying for all of the harm they have caused.¹²⁴ In that case, liability laws do not furnish adequate incentive for private parties to control risks. Although the laws may impose liabilities that exceed the assets of private parties, they treat such losses as being limited to the value of those assets. Because the required amount of efficient care is proportionate to the amount of damages, insolvency of the potential injurer results in ineffective deterrence.¹²⁵ Indeed, because the injurer views any accident as having a total magnitude equal to his assets, he will only take enough precautions to avoid that accident. The standard of "efficient care," however, may be much higher.¹²⁶

In a system using regulations, assets are irrelevant because the regulations require private parties to reduce risks as a precondition for engaging in their activities. Such regulations prevent a business willing to ignore safety regulations from operating. If authorities rely on monetary penalties to induce private parties to comply with regulations, however, regulations, like liability laws, would be ineffective to deter those unable to pay. Hence, only safety regulations, enforced by nonmonetary sanctions, are effective in all cases.

Shavell's third criteria addresses the possibility that few plaintiffs will sue polluters, despite laws providing standing to sue environmental polluters.¹²⁷ If few polluters are sued, the deterrent effect of liability laws decreases and polluters no longer have

122. *Id.*

123. *Id.*

124. *Id.* at 360.

125. *Id.* at 362, 368.

126. Note that Landes and Posner correctly indicated that this problem is more serious under a strict liability rule than under a negligence rule. Under a negligence rule, the injurer still has an incentive to take optimal care as long as the costs of taking optimal care do not exceed his assets because he can avoid paying damages. See LANDES & POSNER, *supra* note 113.

127. Shavell, *supra* note 121, at 363.

the incentive to reduce risks. The possible reasons victims do not sue polluters are threefold. First, victims may not pursue a suit because the harms that the alleged polluter generates are widely dispersed, thereby making legal action financially unfeasible for any individual victim.¹²⁸ Second, environmental harm often does not manifest for a long period of time, creating evidentiary problems for the victim-plaintiff.¹²⁹ Third, victims often have difficulty attributing harm to the parties responsible for producing it.¹³⁰ For these reasons, many victims never sue environmental polluters, despite the seriousness of the damage the polluters have caused.¹³¹ Therefore, liability laws do not give polluters enough incentive to take the necessary precautions to meet the standard of "efficient care."

Shavell's last factor examines the magnitude of administrative costs to private parties and the public in using the tort system. This factor favors liability laws over regulation because liability laws only incur administrative costs when harm occurs. Regulation, on the other hand, incurs administrative costs steadily, whether or not harm occurs. In addition, the polluter in a tort suit must pay administrative costs directly, whereas society as a whole pays regulatory administrative costs. Because the polluters themselves must pay, liability laws are a more effective deterrent.

After examining the four factors, Shavell concludes that two factors generally favor liability—administrative costs and differential knowledge—and two favor regulation—incapacity to pay for harm and escaping suit.¹³²

Most Western European environmental statutory systems use a combination of liability laws and regulations. Substantial regulation exists because liability laws alone do not adequately reduce environmental risks.¹³³ In addition, with respect to the differential knowledge determinant, regulatory agencies often have far better access to, or a superior ability to evaluate, relevant ecological and technological knowledge. Regulatory agencies have this superior ability because of the high cost of developing and maintaining expertise and research regarding the danger of an

128. *Id.*

129. *Id.* at 363.

130. *Id.*

131. *Id.*

132. *See id.* at 365-66.

133. *Id.* at 368-71; Faure, *supra* note 106, at 763-66.

activity to the environment.¹³⁴ Another advantage to regulation is that regulatory agencies can do the research once and then pass it on to industries. In this way, the regulatory agency can set the efficient environmental standard through a regulatory norm. Thus, regulatory agencies can hold industries to a thoroughly researched standard, rather than allowing an industry to regulate itself.

Regulation is also more effective when an industry is unable to pay for the harm it has caused. Explosions, oil spills, or the release of toxic agents or radioactive substances into the environment cause harm that can easily exhaust the assets of even the largest corporation. Insolvency dilutes the deterrent effect of liability laws.¹³⁵ Moreover, the potential insolvency of a polluting corporation generally limits liability to the assets of the corporate entities.¹³⁶

As mentioned earlier, the minimal likelihood that potential polluters will be sued, because environmental harms often manifest only after many years, similarly dilutes the deterrent effect. In such cases, victims may have difficulty assembling the necessary evidence because those responsible may have retired or died, or the corporations themselves may have gone out of business. Moreover, as tracing environmental harms to particular causes is frequently difficult, tracing harms to particular corporations can be exceptionally hard. Thus, latency and causation problems often hinder civil lawsuits for environmental damages.

Although the above arguments favor regulation, the threat of liability is still necessary to complement regulation. Regulation alone does not always lead to an efficient result. As discussed earlier, public choice effects, which are inherent to any government regulation, and the lack of total compliance often lead to inefficient results.¹³⁷ An effective environmental regulatory scheme, therefore, must incorporate both liability and regulation.¹³⁸

C. Regulation and Enforcement

Authorities most frequently use monetary sanctions to enforce environmental regulations in civil, administrative, and criminal

134. See Shavell, *supra* note 121, at 368-71; Faure, *supra* note 106, at 763-66.

135. See Shavell, *supra* note 121, at 368-71; Faure, *supra* note 106, at 763-66.

136. See Shavell, *supra* note 121, at 368-71; Faure, *supra* note 106, at 763-66.

137. See Faure, *supra* note 112, at 160.

138. See Susan Rose-Ackerman, *Regulation and the Law of Torts*, 81 AM. ECON. REV. 54-58 (1991) (asserting tort law can be a complement to statutory regulation).

laws.¹³⁹ According to economic literature, cases of monetary sanctions are justified when relatively high damages occur and a relatively low chance of catching the offenders exists.¹⁴⁰ A sanction exceeding the magnitude of the harm is necessary because the probability of being caught for violating a regulatory norm is less than one.

The formula for deciding how large the fine (D) must be to serve the purpose of deterrence, if the chance (P) that the authorities will catch the offender and force him to pay is less than one, is $D = L/P$, where L equals the harm to the offender.¹⁴¹ If $P = 1$, L and D are equal, assuming a risk neutral offender. If, however, $L = \$10,000$ and $P = 0.1$, meaning that nine times out of ten the offender escapes the clutches of the law, then D , the optimal fine, is $\$100,000$. Only then is the expected cost to the prospective offender— PD —equal to the harm of his act— L .

Turning to criminal law, consider how the environmental offender perceives the costs of crime. The economic analysis of criminal law presupposes that a rational prospective offender is a profit maximizer. This offender weighs both the costs and the benefits of committing a crime and does not undertake illegal action unless the expected benefits of the crime exceed the expected costs.¹⁴² Therefore, increasing expected costs should

139. See Johannes C. Oudijk, *Die Sanktionen im niederländischen Gesetz über Wirtschaftsdelikte und deren Anwendung im Umweltstrafrecht*, WISTRA, June 10, 1991, at 161-68 [hereinafter Oudijk, *Die Sanktionen*]; Johannes C. Oudijk, *De sancties in het economisch milieustrafrecht*, in ZORGEN VAN HEDEN OPSTELLEN OVER HET MILIEUSTRAFRECHT IN THEORIE EN PRAKTIJK 371, 381 (Michael G. Faure et al. eds., 1991) [hereinafter Oudijk, *De sancties*]; Heine & Meinberg, *supra* note 50, at 61-63. Some legal systems, including those of the Netherlands and Germany, do not provide for punitive tort damages. Thus, according to the law of these nations, only public officials, and not private actors may impose monetary sanctions on polluters. Therefore, in the following, the term "fine" includes punitive tort damages as well as administrative and criminal fines.

140. See Richard A. Posner, *An Economic Theory of the Criminal Law*, 85 COLUM. L. REV. 1193, 1201-09 (1985).

141. See *id.* at 1203.

142. The prospective offender does not consider real costs but his own subjective perception of this reality, the expected costs. Therefore, although tainted by a party's own subjective beliefs, reality does influence this expectation. See ROGER BOWLES, *LAW AND THE ECONOMY* 57 (1982); Steven Shavell, *Criminal Law and the Optimal Use of Nonmonetary Sanctions as a Deterrent*, 85 COLUM. L. REV. 1232, 1241 (1985) [hereinafter Shavell, *Criminal Law*]; Steven Shavell, *Deterrence and the Punishment of Attempts*, 19 J. LEGAL STUD. 435, 438-44, 452-54 (1990) [hereinafter Shavell, *Deterrence*]; MICHAEL ADAMS & STEVEN SHAVELL, *Zur Strafbarkeit des Versuchs*, *Goldammer's Archiv für Strafrecht*, Aug. 8, 1990, at 337, 341-42, 345-46, 348; Oudijk, *De Sancties*, *supra* note 139, at 374.

deter a prospective offender. In calculating the expected costs, two important factors are the probability of authorities catching and convicting the offender (P), and the expected maximum punishment (S). The multiplication of these factors then constitutes the expected cost of a crime (C), so that $C = PS$. Increasing P or S will increase C to a level where it exceeds the expected benefits. If for example $S = \$100,000$ and $P = 0.01$, then $C = \$1,000$. By raising either the probability of getting caught, or the expected maximum punishment by a factor of 2, the expected costs double ($C = 2C$). The two ways to obtain this result, however, are not equally easy to achieve. Increasing the expected maximum punishment demands less effort from the government than increasing and subsequently stabilizing the probability of catching the offender. Concurrently, increasing punishment rather than the probability of catching offenders inflicts less cost on society.¹⁴³

From an economic viewpoint, fines and other monetary sanctions are efficient because they are relatively cheap to administer.¹⁴⁴ They also directly diminish profit, and in doing so strike at the heart of the motivation for committing environmental crimes.¹⁴⁵

This analysis leads to the initial conclusion that monetary sanctions are an efficient method to deal with environmental regulation violators. Environmental crimes, however, often involve a relatively high amount of damage. The cost of complying with environmental protection regulations is usually very high as well, while the likelihood of catching offenders is relatively low. Additionally, where parties cause harm much greater than their ability to pay, the expected benefits from illegal pollution are very high. For these reasons, monetary sanctions may not be an adequate deterrent.¹⁴⁶ This shortcoming of monetary sanctions is particularly relevant in the environmental context. In that context, the optimal monetary sanction required for deterrence so

143. Cf. A. Mitchell Polinsky & Steven Shavell, *A Note on Optimal Fines When Wealth Varies Among Individuals*, 81 AM. ECON. REV. 618 (1991); ADAMS & SHAVELL, *supra* note 142, at 353; Oudijk, *De Sancties*, *supra* note 139, at 375.

144. See Gary S. Becker, *Crime and Punishment: an Economic Approach*, in *ESSAYS IN THE ECONOMICS OF CRIME AND PUNISHMENT* 3, 13-14 (Gary S. Becker & William M. Landes eds., 1974); POSNER, *supra* note 105, at 209 (1986); Shavell, *Deterrence*, *supra* note 142, at 439.

145. See Oudijk, *De Sancties*, *supra* note 139, at 375.

146. The insolvency problem is one of the arguments for choosing regulation over liability. See *supra* notes 125-27 and accompanying text.

frequently exceeds the offender's assets that nonmonetary sanctions, such as imprisonment, are necessary.¹⁴⁷

The working relationship between the enterprise and the employee who is convicted and fined reveals another shortcoming of monetary sanctions. If the enterprise pays the fines that an authority has imposed on the employee,¹⁴⁸ the deterrent effect is diluted. In light of these considerations, authorities should employ more than mere monetary sanctions for violations of environmental regulations.

The factors discussed above have important consequences in determining the best enforcement system to induce compliance with environmental regulations. Authorities can impose both criminal and administrative monetary sanctions.¹⁴⁹ An administrative agency, however, cannot impose nonmonetary sanctions, such as imprisonment. According to the European Convention for the Protection of Human Rights and Fundamental Freedoms, only an impartial judge following a procedure proscribed by law can impose nonmonetary sanctions.¹⁵⁰ Hence, imprisonment is available only as a criminal sanction, not as an administrative sanction. These factors affect the ability to use criminal law to enforce environmental regulations.

147. The economic literature usually interprets nonmonetary sanctions to be imprisonment. See Shavell, *Criminal Law*, *supra* note 142, at 1235.

148. According to the Federal Employees Liability Reform and Tort Compensation Act of 1988, in any tort suit brought against a federal employee for actions within the scope of his employment, the United States will be substituted as the defendant and the plaintiff's rights will be determined in accordance with the FTCA. Pub.L. No. 100-694, 102 Stat. 4562 (1988). Section 2679(d) of the United States Code provides that tort recovery from the employee is specifically foreclosed. 28 U.S.C.A. § 2679(d). Paying someone else's fines constitutes a criminal offense in Germany. STGB § 258(II); see HANS HEINRICH JESCHECK, *LEHRBUCH DES STRAFRECHTS, ALLGEMEINER TEIL* 699 (4th ed. 1988); DREHER, *supra* note 64, at § 258, n.9. This rule, however, is very hard to enforce because tracing cash flow between individuals and between individuals and agencies is very difficult. D. HAZEWINKEL-SURINGA & J. REMMELINK, *INLEIDING TOT DE STUDIE VAN HET NEDERLANDSE STRAFRECHT* 610-11 (11th ed. 1989); see also *Weekblad van het Recht* 8345 (March 5, 1906) (judgments of the Dutch Supreme Court); *Weekblad van het Recht* 8492 (Jan. 21, 1907) (holding that a judge cannot make it a prerequisite that the fine is paid by the defendant); Michael G. Faure & Günther Heine, *The Insurance of Fines: the Case of Oil Pollution*, *THE GENEVA PAPERS ON RISK AND INSURANCE* 39, 43-44 (1991).

149. Civil law can also impose a monetary sanction exceeding the amount of the harm done—punitive damages—but most European legal systems do not provide for such a sanction.

150. *European Convention for the Protection of Human Rights and Fundamental Freedoms done*, Nov. 4, 1950, 213 U.N.T.S. 222.

D. Criminal Law and Environmental Crimes

Although criminal law can impose nonmonetary sanctions such as imprisonment, applying criminal law to environmental crimes can be problematic due to the structure of environmental legislation. Characteristic of structures addressing environmental crimes is an interweaving of administrative and criminal law.¹⁵¹ Such structures use permits and licenses extensively, mostly accompanied by specific administrative requirements, to define environmental crimes. Agencies then decide the permitted degree of pollution, thereby determining the scope of environmental crime provisions. Indeed, an examination of environmental crimes in new, Western European environmental statutes reveals that authorities generally only punish the lack of a permit, or a violation of emission standards.¹⁵²

Additionally, no general rule prohibits polluting. Polluting only constitutes a crime when it violates an administrative norm, and even if a general position existed, compliance with a permit is usually sufficient justification. Because most environmental crimes consist of a violation of these administrative norms, the administrative agency that sets the emission standards determines what kind of behavior is criminal.

This type of structure may be economically sound because the administrative authorities have an informational advantage over a judge in an individual criminal case.¹⁵³ The alternative would be to consider all pollution a crime, leaving the judge to decide which acts warrant punishment. In most cases a regulatory agency has either superior knowledge of, or far better access to, relevant ecological and technological information than a judge. Requiring a judge to acquire expert knowledge of chemical and toxic substances, and keep up-to-date with recent developments in the field of environmental science, would be very inefficient, if not impossible. Moreover, administrative agencies acquire information that benefits a large number of people and diminishes the costs of

151. In German literature, the phenomenon of interweavement between administrative and criminal law is called *Verwaltungsakzessorietät*. See generally WINKELBAUER, *supra* note 64; Heine, *supra* note 92.

152. See generally Heine, *supra* note 92.

153. For an argument on the informational advantage, see Shavell, *Regulation*, *supra* note 121, at 358-60; Faure, *supra* note 106, at 763-64.

research for society.¹⁵⁴ Thus, the current structure of relying on administrative agencies to determine environmental crimes appears economically sound. Administrative law, however, cannot be the sole source of enforcement because nonmonetary sanctions are necessary to deal with environmental regulation violations.

E. Public-Choice Effects

The previous analysis assumed that regulation by public authorities serves the public interest. It also assumed that agencies always act to achieve the highest possible level of welfare for the largest possible number of people. Therefore, a government only will regulate when it is efficient according to the above mentioned determinants.¹⁵⁵ Additionally, the agencies that issue pollution permits are not expected to be self-serving.

In reality, however, authorities sometimes issue a regulation even though it appears to be inefficient or, if the regulation itself is not necessarily inefficient, the contents are. Moreover, even if the regulation in a given case seems efficient, the agency's implementation can be inefficient. "Public Choice" economists have examined these effects¹⁵⁶ using micro-economic models to explain the process of regulation, studying the government official or agency itself as a profit maximizer. This approach postulates that one can view a government official as a *homo economicus*, which means that the regulator prefers to issue regulations favoring certain political pressure groups that have something to offer in return. Such political incentives include political power, employment advantages, status, and so on. Consequently, the Public Choice school views regulation as a result of supply and demand on the political market. On the demand side, several interest groups want regulation that is favorable to them. On the supply side, politicians try to maximize their profits. The product is regulation that protects interest groups in exchange for political, economic, and financial support. Therefore, lobbying is an important factor in creating legislation.

Powerful lobbying groups tend to influence regulation in such

154. Faure, *supra* note 106, at 764.

155. See Shavell, *Regulation*, *supra* note 121.

156. See George J. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 3, 3-21 (1971); Thomas G. Moore, *The Purpose of Licensing*, 4 J.L. & ECON. 93, 93-117 (1961).

a way as to limit market entry. In this context, Stigler hypothesizes that, as a rule, industries request authorities to impose regulations which are predominantly written and applied to its advantage.¹⁵⁷ Some industries succeed in using the civil service to their advantage. State power to impose taxes or grant subsidies, and the power to issue coercive regulation relating to market entry in a certain branch of industry or profession, are forms of government intervention which are in great demand.¹⁵⁸ This is also the case within the scope of environmental regulation, where frequently very strict pollution-control requirements only apply to new firms entering the market due to grandfather clauses. Maloney and McCormick illustrate the tighter restrictions on new firms:

The 1970 Clean Air Act and its amendments imposed standards on existing pollution sources as a function of the ambient air quality, while new firms had to meet the strictest standards regardless of local air quality. Moreover, the ambient air standards have been the tightest in the cleanest air regions, further restricting the entry of rivals.¹⁵⁹

The influence of lobbying on environmental law is evident not only in regulations, but also in the individual pollution permits. Almost every environmental statute features the extensive use of permits and licenses accompanied by specific administrative requirements. The same lobbying activities therefore effect the process of issuing both permits and licenses, and the contents of such permits and licenses. In the latter case, however, the so-called "capture theory," rather than the interest group theory of government, explains the success of lobbying. The capture theory predicts that the subjects an administrative agency is intended to control, under certain conditions, will control the agency.¹⁶⁰ This capture happens because civil servants, who regulate the industry, depend on the information that the industry supplies in order to execute their duties and identify themselves with the regulated industries

157. Stigler, *supra* note 156, at 3.

158. Moore, *supra* note 156, at 93-95.

159. *Id.* at 101; see also *Sierra Club v. Ruchelshaus*, 344 F. Supp. 258 (D.C. Cir. 1972), *sub nom. Fri v. Sierra Club*, 412 U.S. 541 (1973); *Alabama Power Co. v. Costle*, 636 F.2d 323, 346 (D.C. Cir. 1979).

160. For information on the capture theory, see A.F. BENTLEY, *THE PROCESS OF GOVERNMENT* (1908); M. UTTON, *THE ECONOMICS OF REGULATING INDUSTRY* 26-27 (1986).

they control.¹⁶¹

Consequently inefficiencies might occur in environmental law as a result of Public Choice effects. The inefficiencies are present both in the drafting of the regulations and in the process of issuing permits and licenses based on environmental statutes. The problems often arise because administrative agencies have broad discretion in fixing the concrete emission standards for the individual polluting firm. Agencies have great discretionary power to make the permit standards either strict or more lenient because, in most environmental laws, license issuing requirements are very broadly formulated and do not seriously limit the agencies' power to set standards freely. Thus, the current structure of environmental law allows the industry to capture the agency easily because an agency need merely to use the discretionary power, granted by law, to favor the industry.

Clearly, this structure is potentially inefficient because the captured agency might set too lenient an emission standard, thus allowing the industry to take less than efficient care. As a result, an internalization of environmental damages will not take place completely. Thus, exerting control over the process of issuing permits and licenses, and observing specific administrative permit requirements, followed by strong enforcement in case of violation, leaves something to be desired.

A possible defense against overly lenient standards set by a captured agency would be to draft stricter general statutory rules that limit the discretionary power of the regulatory agency or the individual government official.¹⁶² For example, stricter rules could prohibit any emissions into the environment without a permit and restrict the issuance of these permits. Stricter rules, however,

161. See MICHAEL G. FAURE & Roger VAN DEN BERGH, OBJECTIEVE AANSPRAKELIJKHEID, VERPLICHTE VERZEKERING EN VEILIGHEIDSREGULERING 148 (1989).

162. Another possibility is to use tort liability as a stop-gap for failing regulation, although judicial second guessing of administrative decisions has several disadvantages as well. For the similarities between licenses and tort law, see Rose-Ackerman, *supra* note 138; SUSAN ROSE-ACKERMAN, RETHINKING THE PROGRESSIVE AGENDA, THE REFORM OF THE AMERICAN REGULATORY STATE 223-43 (1992); Susan Rose-Ackerman, *Environmental Liability Law*, in INNOVATION IN ENVIRONMENTAL POLICY, ECONOMIC AND LEGAL ASPECTS OF RECENT DEVELOPMENTS IN ENVIRONMENTAL ENFORCEMENT AND LIABILITY 118-31 (1992); Michael G. Faure & M.H.S. Ruegg, *Environmental Standard Setting Through General Principles of Environmental Law*, in ENVIRONMENTAL STANDARDS IN THE EUROPEAN UNION IN AN INTERDISCIPLINARY FRAMEWORK 53-57 (Michael G. Faure et al. eds., 1994).

do not provide an effective solution because, as mentioned above, political pressure will effect the drafting of these general rules.¹⁶³ In addition, as long as governments employ licenses or permits, officials will retain enough discretion to allow industries to apply political pressure to obtain permits. Thus, regulation that merely limits the discretionary power of the agency cannot cure the inefficiency regulation that lenient licensing and emission standards cause.

F. Criminal Liability of Government Officials

The individual government official's use of discretionary power to issue permits or impose specific permit requirements causes inefficient environmental regulation. If a government official issues too lenient a permit, the polluter often is not criminally liable because permit violations are the only source of individual polluter criminal liability. Thus, the government agent's granting of the permits protects the polluter's action and contributes to the pollution of the environment. This reality explains the increasing interest in criminal liability for government officials within legal systems that rely on an interweaving of administrative and criminal law to protect the environment. Because agents are subject to political pressure, and because criminal law does not punish polluters who possess permits, the attempted enforcement of environmental regulations will be ineffective. The key question, therefore, is whether the captured agent should be criminally liable for wrongfully issuing a permit that results in pollution.

Government officials will issue permits and licenses in accordance with environmental legislation only if they have sufficient incentives. Imposing sanctions would force the government official to observe "efficient care" in issuing permits and imposing requirements.¹⁶⁴ The question, then, is how to impose sanctions in such a way as to force government officials to exercise optimal care.

Holding government officials civilly liable for harms that stem from issuance of defective permits poses the same problems

163. See Michael Maloney & Robert McCormick, *2 A Positive Theory of Environmental Quality Regulation* 5 J.L. ECON. 99, 99-123 (1982); see also FAURE & VAN DEN BERGH, *supra* note 161, at 163.

164. See Shavell, *Regulation*, *supra* note 121, at 359; Shavell, *Criminal Law*, *supra* note 142, at 1235; Faure, *supra* note 106, at 761-62; ROGER BOWLES & P. JONES, *PROFESSIONAL LIABILITY: AN ECONOMIC ANALYSIS* 64 (1989).

mentioned earlier in the context of a polluter's inability to pay. In view of the often extensive damage that environmental pollution causes, the official might be unable to pay for the harm he or she caused, especially when the total amount of damage exceeds his or her assets. Moreover, plaintiffs most likely will not sue the official because the harm is widely dispersed and trial costs for the victims are high.

Regulation is another possible way to provide sufficient incentives for government officials. Regulation by means of, or controlled by, administrative enforcement would be ineffective, however, because such a system creates a vicious circle. Government officials would have to exert control over and impose administrative sanctions on other government officials.¹⁶⁵ Consequently, government officials must be held criminally liable for issuing defective permits and licenses that cause environmental pollution. Criminal liability of government officials for issuing permits wrongfully fits into the general framework of regulatory enforcement of environmental law.

In summary, the weakness of current environmental law lies in its attempt to base criminal liability on administrative law, the so-called *Verwaltungsakzessorietät*. When agencies issue permits wrongfully, polluters are not subject to criminal liability because the permit justifies their acts. Only criminal sanctions against a government official who wrongfully issues permits, thereby contributing to the pollution of the environment, can cure this inefficiency.

G. Agency Liability Versus Personal Liability

The question of whether the agency, the government official, or both, should be criminally liable mirrors the question of whether, in corporate liability, a corporation or the responsible employee should be liable. There are three possible ways that laws can impose criminal liability on public authorities. Criminal law can hold liable only the agency, only the individual official involved in the violation of the law, or both the agency and the individual agent.

165. Empirical research reveals that the effectiveness of administrative sanctions is minimal because of the strong ties between the controlling official and the regulated official. See Volker Meinberg, *Empirische Erkenntnisse zum Vollzug des Umweltstrafrechts*, ZEOTSJROFT FÜR DIE GESAMTE STRAFRECHTSWISSENSCHAFT 112, 150 (1988).

From an economic point of view, designating the liable party is unimportant so long as the sanctions are freely transferable and the parties are fully informed. With transferable sanctions, either the agency charges to the liable official the imposed fine it paid, or the official asks the agency for reimbursement of the fine he paid. Choosing to impose the fine on either the official or the agency is unimportant because the contractual relationship between the official and the agency governs such matters.¹⁶⁶

Criminal law, however, provides nonmonetary sanctions, such as imprisonment, to adequately enforce environmental regulations. Clearly, authorities may not inflict nonmonetary sanctions on an entire agency. Also, governmental agencies may be equally unable to pay for the damages caused by the pollution it authorized. As in the case of polluters, the agency also may escape suit because the damage to the environment is widely dispersed and therefore difficult to trace. This causes high trial costs for victims of environmental pollution and, hence, fewer suits. Monetary sanctions may exceed the agency's assets and thus not be an effective deterrent. Because monetary sanctions are just as ineffective applied to agencies as to polluters, and because nonmonetary sanctions are inapplicable to agencies, nonmonetary sanctions must apply to individual government officials.¹⁶⁷ U.S. legal authors argue in favor of individual liability of government officials in the area of tort law. The level of control over a public official decreases when agency liability replaces individual liability. The government official who must pay damages out of his own pocket is less likely to act wrongfully than one who knows he will not be responsible. A system of broad governmental responsibility overlooks the need for individual liability of government officials, in practice as well as in theory. At least in the cases of government official fraud, corruption, or malice, the law should not protect the government

166. Even monetary sanctions are not always freely transferable between the employer and the employee in a contractual relationship because sometimes the law prohibits the practice.

167. Polinsky and Shavell are currently making the economic argument. See A. Mitchell Polinsky & Steven Shavell, *Should Employees be Subject to Fines and Imprisonment Given the Existence of Corporate Liability?*, 13 INT'L REV. L. & ECON. 239, 239-57 (1993); see generally Lewis A. Kornhauser, *An Economic Analysis of the Choice Between Enterprise and Personal Liability for Accidents*, 70 CAL. L. REV. 1345, 1345-92 (1982) (discussing principal-agent relationship).

official from personal liability.¹⁶⁸ Even in the case of government official negligence, however, liability should exist to serve as a check. Thus, in addition to government liability, individual government officials should be personally liable for wrongful acts.

Governments should maintain agency liability alongside individual liability because the agency establishes the guidelines and policy rules for the individual official to follow. In this regard, the agency is in the best place to exert an effective degree of control over its officials and their decision making. The threat of sanctions is necessary to urge the agencies to issue prudent guidelines and exert effective control. These sanctions, however, must be monetary because incarcerating agencies is impossible.

An important principle in tort law, which is also relevant in this context, is that of *respondeat superior*. Respondent superior means that an employer is strictly liable for the torts of his employees committed in furtherance of the employment.¹⁶⁹ The employer, however, is strictly liable only for damages that result from negligence on the part of his employees. If an employee has exercised due care but still causes damage, the victim has no claim against the employer.

In economic literature, the *respondeat superior* inquiry focuses on the problem of insolvency. For example, because the employee is often unable to pay for the damage he caused, liability imposed on him alone is ineffective. Holding the employer strictly liable for damage caused by the employee's negligent behavior provides adequate incentives to force the agency to exert effective control over its employees. The employer can threaten termination, or refuse any promotion, as an inducement for careful conduct.¹⁷⁰ In the context of environmental regulation, from an economic point of view, liability of the individual government official in combination with that of the agency is the most effective solution.

168. Under California Government Code § 825.6, a public entity is entitled to indemnification from an employee for any amount paid because of the employee's fraud, corruption, or malice. CAL. GOV'T CODE § 825.6 (West 1996); see SCHWARTZ, *supra* note 1, at 76 n.8.

169. BLACK'S LAW DICTIONARY 1311 (6th ed. 1990).

170. LANDES & POSNER, *The Positive Economic Theory of Tort Law*, 15 GA. L. REV. 851, 914 (1981).

IV. CONCLUDING REMARKS: CRIMINAL LIABILITY AS AN OPTIMAL SOLUTION?

This Article examined the increasing tendency of some legal systems, especially the German legal system, to hold government officials personally liable for the pollution their behavior causes. Prosecution of government officials has become especially important, given the interweaving of criminal and administrative law. Because punishing a polluter with criminal sanctions is only possible when the polluter violates an administrative regulatory norm (such as an obligation to have a license), the administrative authorities have an immense impact on what level of pollution to prosecute. An administrative authority that sets emission standards too low or does not exercise effective control will severely impair the achievement of environmental policy goals. Hence, many environmental lawyers believe that personal liability of government officials is necessary to encourage government officials to take due care when issuing licenses and setting emission standards.

U.S. and German legal systems have seemingly opposing views on the liability of government officials. In the United States, criminal liability for government officials does not exist. Nevertheless, the evolution of U.S. tort case law framed this Article's discussion of civil liability of officials. Although absolute liability of government officials existed at common law, case law evolved towards immunity of the official. The present standard is qualified immunity, which provides that the official can be liable if he knew or should have known that his action violated constitutional rights. Although the liability of the individual official moved from full liability to qualified immunity, liability of the government itself exhibited the opposite trend. Originally, the doctrine of sovereign immunity protected the state against civil law suits, but eventually legislative and jurisprudential actions seriously restricted this doctrine.

German law imposes criminal liability on government officials for negligence. Criminal liability is possible in theory; in practice, however, to date there is only one final conviction of an environmental protection agency official. The wording of the incriminations in the German Criminal Code is the primary cause of this discrepancy. German literature has discussed whether to include in the Criminal Code a specific provision punishing government officials for neglect of duty, as well as a duty to report

environmental crimes to the police. Critics, however, argue that such a specific provision would have a paralyzing effect on public administration.

Presenting an economic analysis of law, this Article examined how an increasing interest in government official personal liability could fit into the general framework of environmental law. The inquiry began by explaining some basic notions behind the need for criminal laws to enforce environmental law. The current structure of environmental criminal law in Western European countries is characterized by an interweaving of criminal and administrative law. The "capture" theory explains why governmental agency officials are inclined to issue licenses too easily or to set requirements too low. The "capture" of agencies by regulated industries creates inefficiencies because if the "captured" agency sets inefficiently low standards the system never achieves a full internalization of environmental damages. Hence, the inquiry focused on instruments that government structures may use to counter the capturing of agencies. Criminal liability of government officials is a device that gives agents incentives to take due care in the licensing process.

Thus, understanding why legal scholars show an increasing interest in holding government officials criminally liable is easy. Criminal liability of government officials does not provide us with all the answers and, on the normative level, *Amtsträgerstrafbarkeit* is not necessarily a solution to all problems of environmental policy. Many questions still exist. For instance, explaining why the German legal system generally accepts criminal liability of government officials while U.S. legal doctrine seems to oppose the idea is difficult. One explanation is that Germany's law does not accept criminal liability of corporations and agencies, and must turn to the punishment of the individual official. The U.S. legal system, however, accepts criminal liability of legal persons, such as corporations, thus diminishing the need for punishment of the individual official. On the other hand, U.S. law does not recognize the criminal liability of governmental agencies, so liability of legal persons alone does not fully explain the differences in acceptance of criminal liability of government officials. Further inquiry may explain the economic reasons behind the seemingly opposing views of each legal system.

Another point that merits further research is the possible application of Becker's classic theory of crime to government

officials.¹⁷¹ In applying this theory, and in calculating the benefits of criminal behavior, any benefits the official gains when he favors a regulated industry are difficult to see. Additionally, defining a due care standard for licensing behavior is difficult. Precisely because the official has vast discretionary powers, proving that he used his powers in a negligent way, and should therefore be liable, is also often difficult. Indeed, none of the cases discussed herein involved clear bribery of an official. In some cases, courts did not require plaintiffs to prove bribery and showing that the official wrongfully used his powers to allow pollution to continue was enough. The difficult question arises as to what standard to apply in judging the behavior of the government official.

Others have proposed holding government officials criminally liable in the context of enforcing environmental regulations. This proposed analysis is based on utilizing the administrative structure of the environmental regulatory scheme of issuing permits and licenses. Based on a marketable pollution rights model, as has been suggested by some economists, some of these problems might disappear with a modern, economically sound legal approach to protect the environment.¹⁷²

One, however, should not forget that in the pollution rights model, administrative agencies continue to play an important role. Even if government officials do not set emission standards through permits, government officials could still intervene, for example, to determine pollution rights, control transfers, and control use of attributed rights. Hence, the question of criminal liability of government officials is also important in a pollution rights model.

In the current system of control through permits and licenses, the government official plays a crucial role. Pursuant to environmental statutes, it is the official who determines the acceptable level of pollution warranting the issuance of a permit or license. Hence, the official is a crucial link in the chain of control over environmental pollution. Because this link may be weak due to the "capturing" of an agency, criminal liability of government

171. See generally Becker, *supra* note 144.

172. See A. Nentjens, *Marktconform milieubeleid*, ECONOMISCH STATISTISCHE BERICHTEN 401-05 (1988); J. Klaus, *Umweltökonomie und Umweltpolitik*, in ÖKOLOGIE, ÖKONOMIE UND JURISPRUDENZ 6-8 (Edgar Wenz et al. eds., 1987); BRUCE ACKERMAN ET AL., THE UNCERTAIN SEARCH FOR ENVIRONMENTAL QUALITY 260-81 (1974); Jan Bongaerts & Andreas Kraemer, *Water Pollution Charges in Three Countries*, 1 EUR. ENV'T REV. 12, 12-19 (1987).

officials offers a viable solution to counter the "capturing" effects. One, however, should note that there are less drastic solutions to counter the capturing of an agency than using criminal law, such as promoting the independence of the agency. In addition, a change in environmental law that makes it possible to punish the polluter if he causes "serious" pollution despite his license also could counter the capture of agencies. If this change occurred, the dependence on administrative rules would diminish, along with the need to make government officials criminally liable. As an alternative to using criminal law to regulate the behavior of government officials, such officials could become elected representatives and thus politically accountable.

One should not exaggerate the possible role of criminal law in deterring government officials in the environmental arena. Although in theory the threat of criminal prosecution would lead to extra caution and an effective level of control over the government official, the detection rate and the likelihood that the state would prosecute is uncertain. The public prosecutor, to a large extent, has to depend on government officials as his eyes and ears. Because of this dynamic, a prosecutor most likely will be unable to prosecute his colleagues for violations of criminal law. In practice, polluters rarely receive severe criminal sanctions, especially imprisonment, so it seems unlikely that government officials who issued the license would suffer these harsh sanctions.

The responsibility and crucial role of government warrants the liability of government officials for their failures. Further research, however, is necessary to investigate several pending questions. Criminal law remains a useful complement to other legal instruments, such as civil liability and administrative enforcement, in implementing and enforcing environmental law.

